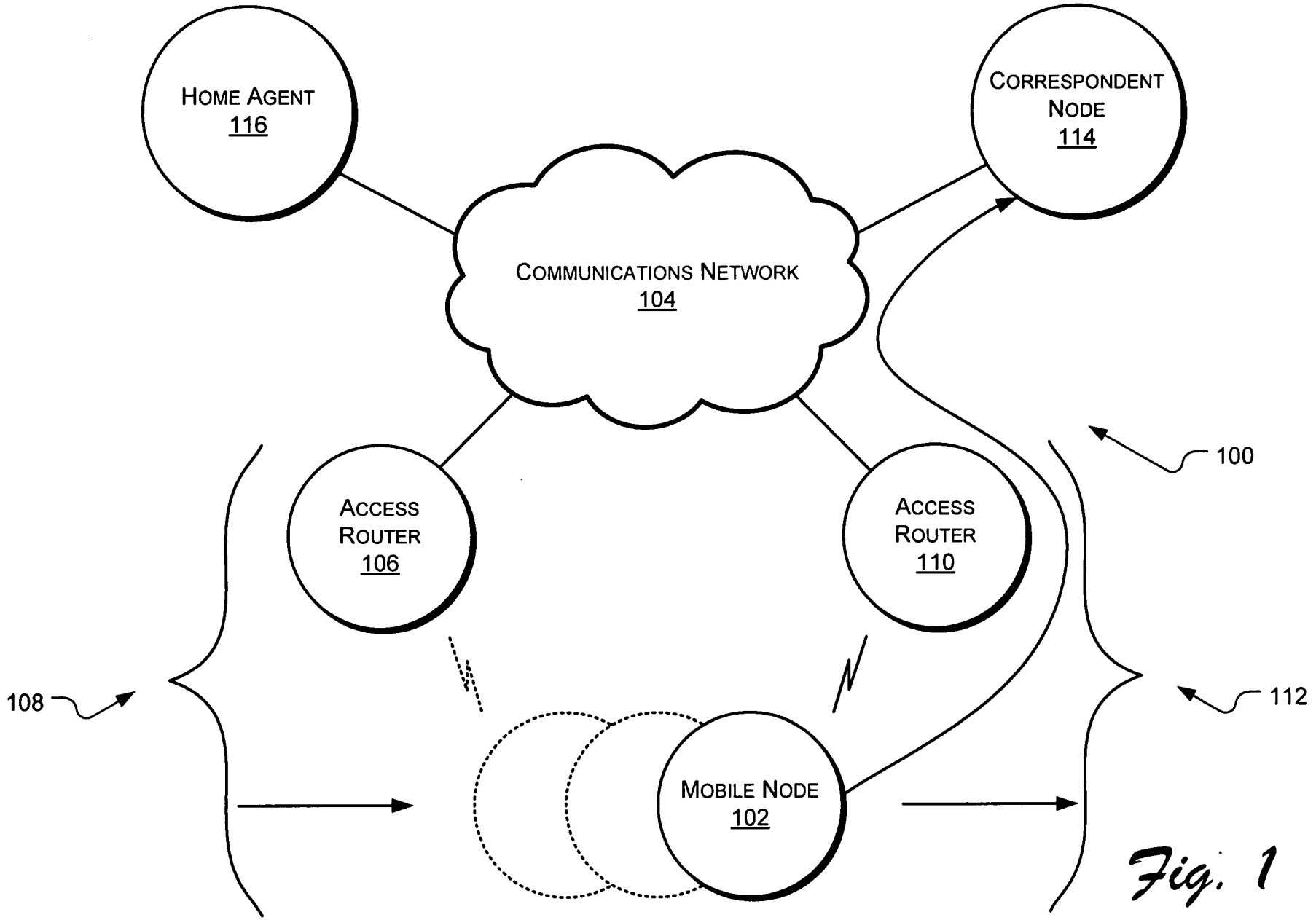

HOME AGENT
116
CORRESPONDENT NODE
114
COMMUNICATIONS NETWORK
104
ACCESS ROUTER
106
ACCESS ROUTER
110
100
108
112
MOBILE NODE
102

Fig. 1

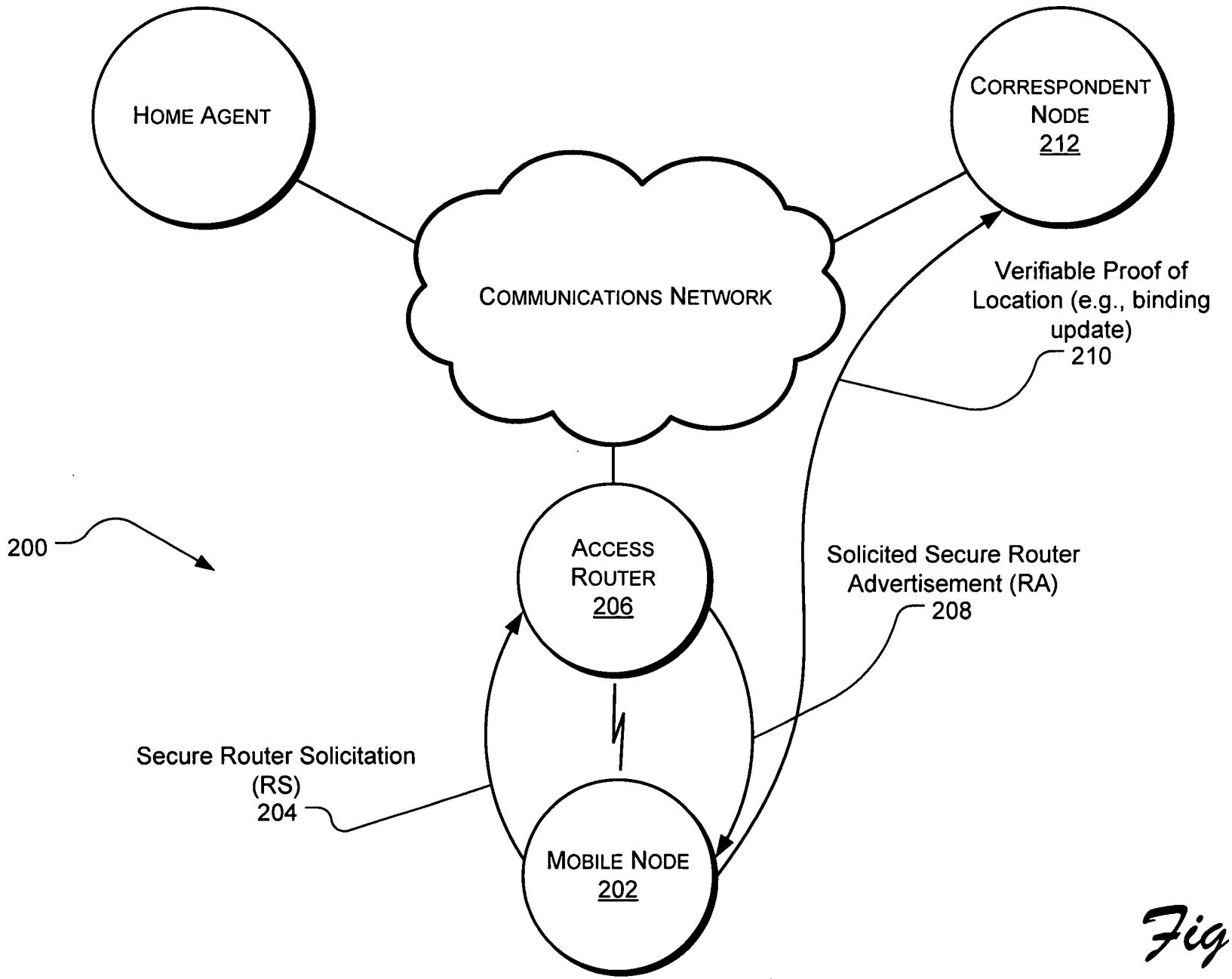

HOME AGENT
CORRESPONDENT NODE
212
COMMUNICATIONS NETWORK
Verifiable Proof of Location (e.g., binding update)
210
200
ACCESS ROUTER
206
Solicited Secure Router Advertisement (RA)
208
Secure Router Solicitation (RS)
204
MOBILE NODE
202

Fig. 2

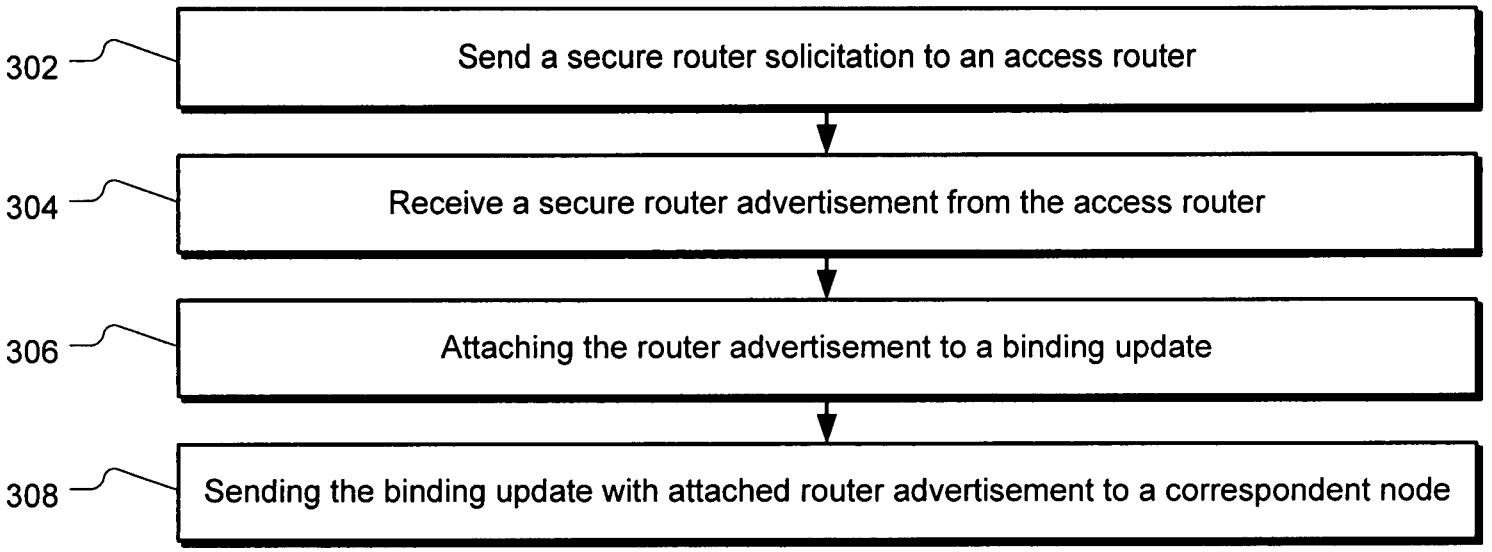

302
Send a secure router solicitation to an access router
304
Receive a secure router advertisement from the access router
306
Attaching the router advertisement to a binding update
308
Sending the binding update with attached router advertisement to a correspondent node

Fig. 3

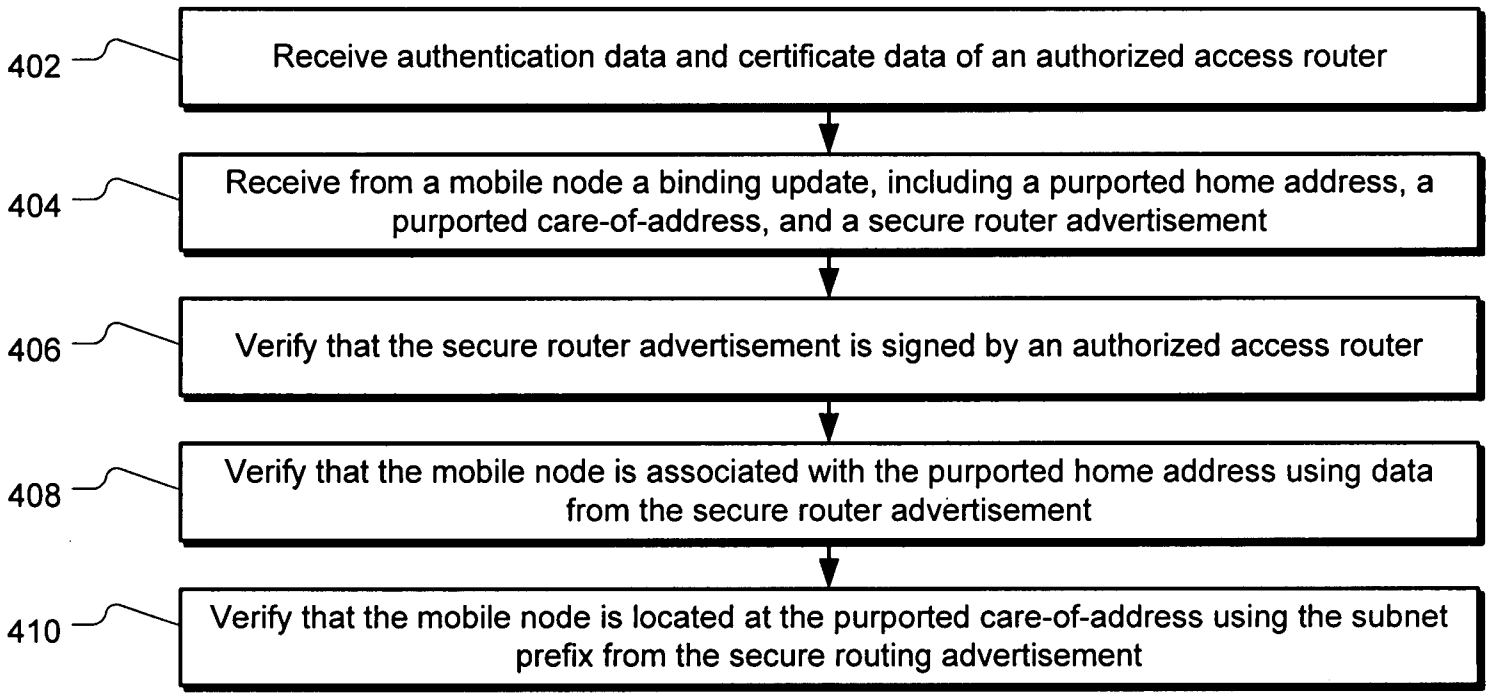
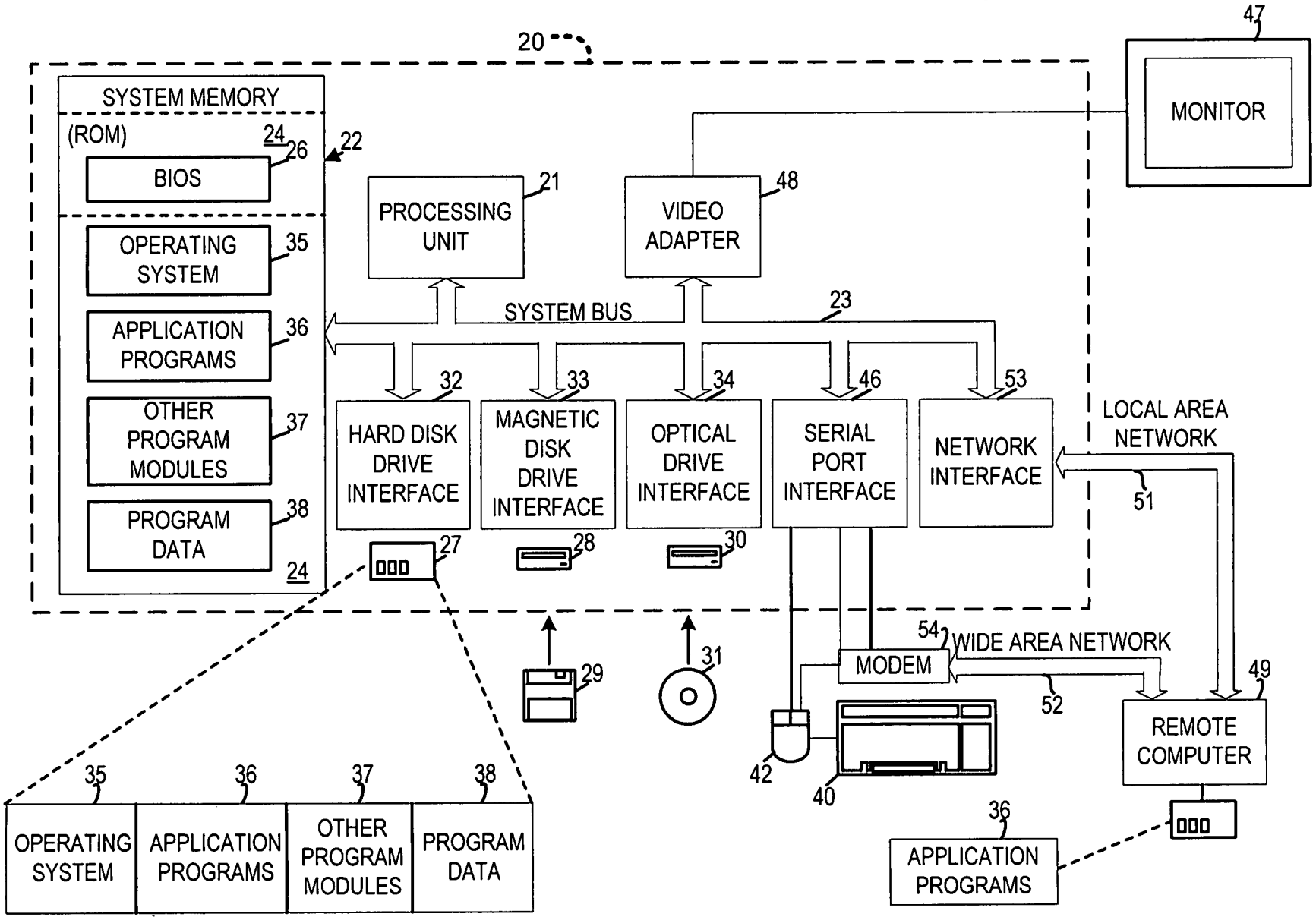

402
Receive authentication data and certificate data of an authorized access router
404
Receive from a mobile node a binding update, including a purported home address, a purported care-of-address, and a secure router advertisement
406
Verify that the secure router advertisement is signed by an authorized access router
408
Verify that the mobile node is associated with the purported home address using data from the secure router advertisement
410
Verify that the mobile node is located at the purported care-of-address using the subnet prefix from the secure routing advertisement

Fig. 4

Fig. 5


20
47
MONITOR
SYSTEM MEMORY
(ROM)
24
26
22
BIOS
OPERATING SYSTEM
35
APPLICATION PROGRAMS
36
OTHER PROGRAM MODULES
37
PROGRAM DATA
38
24
PROCESSING UNIT
21
VIDEO ADAPTER
48
SYSTEM BUS
23
HARD DISK DRIVE INTERFACE
32
MAGNETIC DISK DRIVE INTERFACE
33
OPTICAL DRIVE INTERFACE
34
SERIAL PORT INTERFACE
46
NETWORK INTERFACE
53
LOCAL AREA NETWORK
51
27
28
30
29
31
54
WIDE AREA NETWORK
MODEM
52
49
REMOTE COMPUTER
42
40
36
APPLICATION PROGRAMS
35
36
37
38
OPERATING SYSTEM
APPLICATION PROGRAMS
OTHER PROGRAM MODULES
PROGRAM DATA